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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,847	07/31/2000	Terry Emerson Summach	8675-072-27 sd	8115

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CNH AMERICA LLC
INTELLECTUAL PROPERTY LAW DEPARTMENT
700 STATE STREET
RACINE, WI 53404

EXAMINER


NOVOSAD, CHRISTOPHER J

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/623,847	Applicant(s) SUMMACH ET AL. 	
	Examiner Christopher J. Novosad	Art Unit 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-88 is/are pending in the application.
- 4a) Of the above claim(s) 53-84 and 88 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 85-87 is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-12, 18, 29, 45, 47, 48 and 51 is/are rejected.
- 7) ☒ Claim(s) 7-9, 13-17, 19-28, 30-44, 46, 49, 50 and 52 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicants' election without traverse of 1-52 and 85-87 in the reply filed on September 28, 2004 is acknowledged. Accordingly, claims 53-84 and 88 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-12 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In parent independent claims 10 and 18, respectively, the recitations of "between 14 and 45 degrees, and preferably between 20 and 30 degrees" and "between 1.5 and 4.5 cm, and preferably between 2.5 and 4 cm," each recite a preferable narrower range within a broader range. Such recitations render the claims vague and indefinite because the scope of the claims cannot be determined.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 29, 45, 47, 48 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canadian reference '050 alone.

The Canadian '050 reference discloses:

an agricultural implement, which is arranged for introducing materials into the ground, comprising:

a knife (5) having an angled blade (5);

a drawing means (not shown) for drawing the angled blade through the ground in a forward direction (while this is not expressly disclosed, it is clearly implied and is clearly essential for the normal operation of the disclosed seeding assembly);

the angled blade is effective, when drawn through the ground, to create an angled slit-opening in the ground (see page 1, lines 27-29 and page 3, lines 13-16);

a conduit (7) for conducting the materials to the angled blade (5);

the conduit (7) is secured to the angled blade (5), and is positioned thereon that, during operation, a discharge mouth (page 4, lines 24-28) of the conduit is located in the ground at a depth below the ground surface, and is so located in relation to the angled blade as to deposit the materials (fertilizer) directly behind the angled blade (5), in the slit-opening created by the angled blade, as the knife is drawn through the ground (see page 4, lines 2-5, 21-23);

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the angled blade (5) is formed with an over-surface (not numbered in Figs. 1 and 3) and an under-surface (not-numbered in Figs. 1 and 3), which intersect at a line defining a knife-edge of the blade (5, see Fig. 3);

a knife-mounting means (shank 1 and main body adapter 2) effective to mount the angled blade (5) at such an orientation and disposition in relation to the ground, during operation of the implement, that:

(a) when viewed from the forward direction, the knife-edge makes an angle to the horizontal, termed the side-slope angle, of between 30 and 60 degrees (see Fig. 3 for the forward view wherein the blade 5 is shown to be at a side-slope angle of about 45 degrees).

Parent claim 1 differs over Canadian reference '050 in reciting that "the angled blade extends down into the ground to a blade-depth of no more than about 15 cm, when measured vertically down from the ground surface" while claim 10 more narrowly recites that it is "no more than 10 cm." However, the selected, recited blade depths noted above in claims 1 and 10 are conventional depths for seeding and injecting fertilizer when using implements of the type disclosed in the Canadian '050 reference. Therefore, since the use of the recited blade-depths come within the scope of customary practice when using conventional implements for seeding and fertilizing, as in the Canadian '050 reference, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the recited blade-depths during the customary operation of the implement of Canadian reference '050 for versatility and for optimal seeding and fertilizer injection.

With respect to claims 3 and 4, the angled-blade of the reference is wholly below ground when in normal operation, and the knife-edge is "a straight line" when viewed either in front

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elevation or “at right angles to the over-surface” of the blade, as called for in these respective claims. See Figs. 1 and 3 of the reference showing the blade 5 to have a straight edge.

Regarding claim 5, see Fig. 3 of the Canadian ‘050 reference wherein the side-slope angle of the blade 5 is shown to be “about 45 degrees,” as called for in the claim.

As to claim 6, the side-slope angle of blade 5 of the Canadian ‘050 reference is shown in Fig. 3 to be “constant over substantially the whole of the below-ground portion of the blade” as recited in the claim.

Regarding claim 29, the knife-edge portion of the below-ground blade (the whole blade 5 of the Canadian ‘050 reference shown in Figs. 1 and 3) is “smooth and interrupted” as called for in this claim.

With respect to claim 45, since the blade structure 5 of the Canadian ‘050 reference is similar to applicants’ claimed blade structure, the function of the reference implement in depositing materials would therefore be similar to that of applicant’s implement. Accordingly, normal operation of the reference implement would meet the functional recitation of “wherein the materials are deposited on soil in the slit opening that has substantially not been compressed by the passage of the angled knife.”

In claim 47 the recitation that “the implement includes a means for forcing air to flow through the conduit, whereby particulate materials in the conduit are urged along the conduit, and out of the discharge mouth, by the flow of air,” is considered to be met by the Canadian ‘050 reference (page 3, lines 7-9) wherein it is stated that the conventional seeding /fertilizing thereof can be an “air drill” or an “air seeder,” which would necessarily use forced air to urge the seed and/or fertilizer through the seed/fertilizer conduits as called for in the claim.

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With regard to claim 48, the broad recitation of an implement “frame” from which the angled blade is suspended, and the recitation that the “drawing means includes a hitching means whereby the implement-frame is hitched to a tractor,” are essential, commonly used elements for suspending or supporting an angled blade within the implement, and for connecting or hitching the implement frame to a tractor. Therefore, the use of the above-recited, commonly used, essential elements with the implement of the Canadian ‘050 reference for the purpose of suspending or supporting an angled blade on the Canadian ‘050 implement, and for the purpose of connecting or hitching said implement frame to a tractor, would have been obvious to one of ordinary skill in the art at the time the invention was made.

In claim 51, the recited limitations that “the implement includes a hopper, for storage of the materials to be introduced into the ground, and the conduit is arranged to conduct the materials from the hopper to the angled blade” are clearly met by the disclosure in the Canadian ‘050 reference (page 4, lines 2 to 5) that the fertilizer delivery tube 7 is attached at the rear of the fertilizer knife edge and carries fertilizer from “*a supply (not shown)*” (emphasis added) to a furrow created by the fertilizer knife edge 5 as it moves through the soil. The “hopper,” as broadly recited in the claim, is met by the disclosed fertilizer supply (not shown) in the reference.

Allowable Subject Matter

Claims 85-87 are allowed.

Claims 7-9, 13-17, 19-28, 30-44, 46, 49, 50 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Claims 10-12 and 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

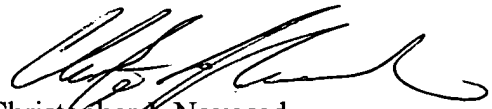
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. British reference '412, Fincham, Canadian reference '555, Adair and Grimm *et al.* show various implements. These references were listed in a search report filed on July 31, 2000, and copies of the foreign references were provided, but no PTO-1449 was provided, so these references have been cited on a PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher J. Novosad whose telephone number is 703-308-2246. The examiner can normally be reached on Monday-Thursday 5:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached at 703-308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher J. Novosad
Primary Examiner
Art Unit 3671

November 1, 2004